

REMARKS

Applicant concurrently files herewith an Excess Claim Fee Payment Letter and fee for an excess dependent claim.

Claims 1-15 and 17-22 are all the claims presently pending in the application. New claims 21-22 have been added to more completely define the present invention.

It is noted that the claims have been amended solely to more particularly point out Applicant's invention for the Examiner, and not for distinguishing over the prior art, narrowing the claim in view of the prior art, or for statutory requirements directed to patentability.

It is further noted that, notwithstanding any claim amendments made herein, Applicant's intent is to encompass equivalents of all claim elements, even if amended herein or later during prosecution.

Attached hereto is a marked-up version of the changes made to the Specification and/or claims by the current Amendment. The attached pages are captioned "**Version with markings to show changes made**".

Claims 1-15 and 17-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Woodhill et al. (U.S. Patent No. 5,649,196) (hereinafter "Woodhill").

This rejection is respectfully traversed in view of the following discussion.

I. THE CLAIMED INVENTION

Applicant's invention, as defined for example in independent claim 1 (and substantially similarly in independent claims 11 and 14) is directed to a file manager for managing a plurality of files and locating a file from among different versions of a same file.

The invention was discussed in detail in the Amendments filed on December 3, 2002 and July 2, 2002, and incorporated herein by reference. For convenience, the Examiner is referred thereto.

A feature of the present invention is a table for associating the file with a priority list of

physical units, where the physical units store a plurality of versions of the file. Specifically, the table includes a plurality of associations of a same file logical path name and a file name in a one-to-one correspondence with a plurality of physical units.

A further feature of the present invention is that each of the plurality of associations includes an association of a unique version of the file having the same file logical path name and the file name.

With such a feature, duplication of a file is avoided and several versions of a file with a common logical identification can be saved (e.g. see page 3, lines 7-11 and page 6, lines 2-12).

An exemplary configuration of the file manager and method of using a file manager to locate different versions of a file, all having the same path referring to a same logical unit and a same identifier, is shown in Figs. 1-2 of the application.

The conventional network systems and methods, such as those discussed below and in the Related Art section of the present application, do not have such a structure and fail to provide for such an operation.

Indeed, such features are clearly not taught or suggested by the cited reference.

II. THE PRIOR ART REFERENCE

The Woodhill Reference

The Examiner asserts that:

[With respect to claims 1, 11 and 14] Woodhill does not explicitly disclose a same file logical path. However, Woodhill discloses that for each File Identification Record 34 in File Database 25, one or more Backup Instance Records 42 are created that contain information about the file (identified by File Identification Record 34) at the time that the file is backed up.....

Thus, the backup file is [the] same as the file to be backup (sic).

Therefore, it would have been obvious [to] a person having ordinary skill in the art [at] the time invention was made to include the same file on the system of Woodhill to copy [the] same file on different directory. The creating backup file with copying same file on different physical location can protect files from system failure. If the file is lost by system failure, the lost file is recovered from backup. Thus, it would be beneficial to create the backup file (copying same file).

However, Applicant respectfully disagrees.

Firstly, regarding the Examiner's assertions about Woodhill's disclosure, there appears to be confusion in the words and terms used. Specifically, while the words and terms used in Woodhill are similar to the words used in the present patent application (e.g., such as "file identifier", "file priority", and "file version"), the meanings of these words are completely different.

That is, Woodhill and the present invention belong to two fundamentally different technical domains. For example, Woodhill discloses a system for file backup in contrast to the present invention for software installation or management of new versions of files having the same logical file name.

Woodhill discloses a method to create for one given file, one or two files which are the two levels of backup of a same file. An identifier is used to identify the content of the file and if a second file has the same identifier then it is not backed up. Woodhill discloses "...*the calculation of the binary object identifier is based upon the actual data contents of the associated binary object*" (e.g., see column 2, lines 9-11 of Woodhill), if the file has the same identifier it is not backed-up. A file priority is used to give a priority between the files for the processing of the backup. The value of the priority is used as a criterion for processing depending on environment capabilities such as storage availability, processor or network load. Woodhill discloses that each version of a same file is independently backed-up. That is "[t]he Distributed Storage Manager program 24 performs two concurrent backup operations. In most cases, the Distributed Storage Manager program 24 stores a compressed copy of every binary

object it would need to restore every disk drive 19 on every local computer 20 somewhere on the local area network 16 other than on the local computer 20 on which it normally resides (e.g., see column 9, lines 30-36 of Woodhill).

Assuming that some applications on a computer system use a subroutine called under the file name and path "c:\SYSTEM\LIB.DLL". This subroutine may have different versions, for instance a second version of a subroutine (e.g., for example a 2002 version V1, compared to a 2003 version V2) corresponding to two different file contents. The system administrator may want to have the applications using a particular version of the subroutine.

The present invention allows, without any change in the application codes which call the subroutine under the same logical name and path like c:\SYSTEM\LIB.DLL, to use different versions of the subroutine which are stored on one physical disk space under the same normal file name LIB.DLL.

An identifier, which comprises a priority list, is associated to each logical file name and path or pointer to each subroutine like the first version and the second version of LIB.DLL and forms an entry of a table. The priority list comprises a list of physical units, each physical unit of the list corresponding to each version file of LIB.DLL with each version having one priority assigned.

Upon a call from an application, the file manager will read the first entry of the list to access the subroutine file which is stored on this physical unit under the name and path c:\SYSTEM\LIB.DLL. If the file corresponding to priority one does not match, the application will be in error (e.g., get into trouble). To address this problem, the priority list has to be modified.

However, in the present invention, there is no need of re-installing subroutine files to switch from one version to another version. All the versions are always available for future test or use. In the present invention, a following version in the priority list is read to provide it to the application. The system administrator has installed the different versions of the LIB.DLL subroutine in different physical units under the same c:\SYSTEM\LIB.DLL name and path. By updating the priority lists in the table, the system administrator can send the applications toward specific versions of different files.

In the present invention, different physical units store different versions of a same file having the same file name and path name. This is different from a backup file which contains copies of a same file (e.g., as disclosed by Woodhill).

Also, in contrast to Woodhill, the identifier in the present invention does not identify the content of the file, but instead identifies a list of physical units where the right version can be located. The priority in the present invention is not provided based upon a computer system performance criteria, but rather on the order of where to try to find the right version of the file.

Also, as defined by dependent claim 3 of the present invention, the invention may also comprise an attribute defining type of access authorized to that version file such as write, read (for a data file) or execute (an executable code file). In the table of Fig. 1, for example, the file c:\DIR1\FILE2 can be accessed in READ only, and the correct version of the file can be found under the same file name and path name on Physical unit 2Y and if not found on Physical unit 3Z.

Woodhill does not teach or suggest how to find the right version of a file by reading on successive physical units the file under a given name and path until a desired version is located.

Thus, despite the ambiguity due to the similarity of the vocabulary used in Woodhill and Applicant's own application, the present invention and Woodhill are completely different.

That is, the object of the present invention is, for recovery purposes, to be able to restore a previous system level file by file, transparently, by changing the physical unit reference in the path of that file. Nowhere is this taught or suggested by Woodhill.

Thus, Woodhill nowhere teaches or suggests the feature of the present invention where each of the plurality of associations includes an association of a unique version of the file having the same file logical path name and the file name.

As such, Woodhill does not and cannot provide the advantages of the present invention including avoiding the duplication of a file and the ability to save several versions of a file with a common logical identification. Instead, Woodhill teaches away from the present invention and has as its object the duplication and back-up of a same file.

Hence, turning to the clear language of independent claim 1 (and similarly of independent

claims 11 and 14), there is no teaching or suggestion of “[a] file manager provided for locating a file identified by a path referring to a unit and an identifier, comprising:

*a table for associating said file with a priority list of physical units,
wherein said physical units store a plurality of versions of said file, and
wherein said table comprises a plurality of associations of a same file logical path name
and a file name in a one-to-one correspondence with a plurality of physical units, and
wherein each of said plurality of associations comprises an association of a unique
version of said file having said same file logical path name and said file name” (emphasis
Applicant’s).*

For the reasons stated above, the claimed invention is fully patentable over Woodhill.

Additionally, dependent claims 2-10, 12-13, 15, and 17-20 (and new claims 21-22) when combined with their respective independent claims define additional novel and non-obvious features.

III. FORMAL MATTERS AND CONCLUSION

In view of the foregoing, Applicant submits that claims 1-15 and 17-22, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

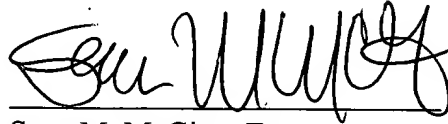
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9

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to the Assignee's Deposit Account No. 50-0510.

Date: 4/14/03

Respectfully Submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims have been amended as follows:

1 1. (Twice Amended) A file manager provided for locating a file identified by a path referring to
2 a unit and an identifier, comprising:
3 a table for associating said file with a priority list of physical units,
4 wherein said physical units store a plurality of versions of said file, [and]
5 wherein said table comprises a plurality of associations of a same file logical path name
6 and a file name in a one-to-one correspondence with a plurality of physical units, and
7 wherein each of said plurality of associations comprises an association of a unique
8 version of said file having said same file logical path name and said file name.

1 11. (Twice Amended) A file manager for locating a file, comprising:
2 a table for associating said file with a priority list of physical units,
3 wherein said file is identified by a path referring to a logical unit and an identifier,
4 wherein said physical units store a plurality of versions of said file, [and]
5 wherein said table comprises a plurality of associations of a same file logical path name
6 and a file name in a one-to-one correspondence with a plurality of physical units, and
7 wherein each of said plurality of associations comprises an association of a unique
8 version of said file having said same file logical path name and said file name.

1 14. (Twice Amended) A method for locating a file identified by a path referring to a
2 logical unit and an identifier, comprising:
3 associating, in a file manager having a table, said file with a priority list of physical units,
4 wherein said physical units store a plurality of versions of said file, [and]

5 wherein said table comprises a plurality of associations of a same file logical path name
6 and a file name in a one-to-one correspondence with a plurality of physical units, and
7 wherein each of said plurality of associations comprises an association of a unique
8 version of said file having said same file logical path name and said file name.